

I CLAIM:

Subj B7 A method of making an article of apparel used to cover a wearer's extremities comprising the steps of:

- (a) depositing a heat activated adhesive on the surface of a stretchable, waterproof, breathable membrane to form a coated membrane;
- (b) forming said coated membrane into a bladder having a perimeter of a first size and a first length and having an extremity receiving portion in the general shape of the wearer's extremity to be covered, said bladder having an upper portion and a lower portion, each said upper and lower portion having a smooth outer surface and a smooth inner surface generally conformable to the contours of the extremity to be covered;
- (c) placing said bladder over a first fabric member having a perimeter of a second size smaller than said first size and a second length less than said first length and being in the general shape of the wearer's extremity to form a first assemblage having a third size, said first assemblage comprising said first fabric member with said bladder overlaying a portion of said first fabric member;
- (d) placing a second fabric member over said first assemblage to form a second assemblage, said second fabric member having a perimeter of a fourth size larger than said third size of said first assemblage, and a third

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length greater than said second length of said first fabric member, including a lower portion and an upper, elastic cuff, said elastic cuff having an upper section and a lower section disposed in overlaying engagement with said bladder; and

(e) simultaneously heating and compressing said second assemblage at a pressure sufficient to form a composite in which said first fabric member is securely bonded to said bladder and in which said upper portion of said bladder is securely bonded to said lower section of said elastic cuff, said composite being such that said upper section of said elastic cuff extends beyond said bladder and said lower section of said elastic cuff urges said bladder into sealing engagement with the wearer's extremity.

2. A method as defined in claim 1 in which said step of simultaneously heating and compressing said second assemblage causes said heat activated adhesive on said upper portion of said bladder to melt to form a smooth, extremity engaging surface.

3. A method as defined in claim 1 in which said waterproof, breathable membrane comprises a thin, generally planar, smooth surfaced thin film having a wall thickness of about 0.0016 inch.

4. A method as defined in claim 1 in which the article of apparel comprises a sock.

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the steps of:

- (a) depositing a heat activated adhesive on the surface of a stretchable, waterproof, breathable membrane to form a coated membrane;
- (b) forming said coated membrane into a bladder having a perimeter of a first size and a first length and having a foot receiving portion in the general shape of the wearer's foot, said bladder having an upper portion and a lower portion, each said upper and lower portion having a smooth outer surface and a smooth inner surface generally conformable to the contours of the wearer's foot;
- (c) placing said bladder over a first fabric member having a perimeter of a second size smaller than said first size and a second length less than said first length and being in the general shape of the wearer's foot to form a first assemblage having a third size, said first assemblage comprising said first fabric member with said bladder overlaying a portion of said first fabric member;
- (d) placing a second fabric member over said first assemblage to form a second assemblage, said second fabric member having a perimeter of a fourth size larger than said third size of said first assemblage, and a third length greater than said second length of said first fabric member, including

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a lower portion and an upper, elastic cuff having at first lower section in overlaying engagement with said bladder and a second upper section extending beyond said bladder; and

(e) simultaneously heating and compressing said second assembly at a pressure sufficient to form a composite in which said first fabric member is securely bonded to said bladder and in which said outer surface of said upper portion of said bladder is securely bonded to said first lower section of said elastic cuff, said inner surface of said upper portion of said bladder having smooth, glazed leg engaging surface, said composite being such that said inner surface of said upper portion of said bladder is urged into sealing engagement with the wearer's leg by said first lower section of said elastic cuff and said second upper section of said elastic cuff extends beyond said bladder.

6. A method as defined in claim 5 in which said waterproof, breathable membrane comprises a thin, generally planar, smooth surfaced thin film having a wall thickness of about 0.001 inch.

7. An article of apparel used to cover a wearer's extremities comprising:

(a) an adhesive coated bladder having a perimeter of a first size and a first length and having an extremity receiving portion in the general shape of the wearer's extremity to be covered, said adhesive coated bladder having

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an upper portion and a lower portion, each said upper and lower portion having a smooth outer surface and a smooth inner surface generally conformable to the contours of the extremity to be covered said upper portion of said bladder being so constructed and arranged to engage the extremity to be covered;

(b) a first fabric member connected to said inner surface of said adhesive coated bladder, said first fabric member having a perimeter of a second size smaller than said first size and a second length less than said first length and being in the general shape of the wearer's extremity; and (c) (c) a second fabric member connected to said outer surface of said adhesive coated bladder, said second fabric member having a length greater than said second length of said first fabric member, and a length greater than said first length of said bladder, said second fabric member including a lower portion and an upper, elastic cuff for urging said upper portion of said bladder into sealing engagement with the wearer's extremity, said elastic cuff having a first section and a second section disposed in overlaying engagement with said bladder.

8. The article as defined in claim 7 in which said adhesive coated bladder comprises a thin, generally planar, smooth surfaced thin film having a wall thickness of between about 0.001 and 0.003 inches.

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9. The article of apparel as defined in claim 7 in which said article comprises a sock.
10. The article of the apparel as defined in claim 7 in which said bladder has an upper extremity and in which said first section of said elastic cuff extends beyond said upper extremity of said bladder.